

Notice of Allowability

Application No.

09/615,613

Examiner

Chad Zhong

Applicant(s)

CHA, JEONG-HO

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/02/2005.
2. ☒ The allowed claim(s) is/are 1-11 and 13-23.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


BUNJOB JAROENCHONWANIT
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steve Cha, Reg. No. 44,069 on 10-28-2005.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. The application has been amended as follows:

In the claims:

3. Claim 18 is amended as follows:

18. (Currently Amended) A program-changing method for a network that includes a plurality of nodes and, connected to a node of the plural nodes, a Network Management System (NMS), the plural nodes being connected in a particular formation, said method comprising the steps of:

transmitting a new program, from the NMS, to a first node of the plural nodes; and
iteratively propagating the new program forward along said formation from said first node to a second node, from the standpoint of inter-node hops on said formation, is an immediately neighboring node of corresponding said first node such that the second node and

receives the new program, and receives said new program exactly once, each of said inter-node hops of the propagation being controlled by the NMS.

wherein the NMS exercises the control by issuing two types of signals, one of the types being a program-changing signal that commands a first node of the plurality of nodes to, by storing at a fixed, allocated portion of memory at said first node, replace, with the new program, a program stored in said memory of said first node, the other type being a data-transmitting signal that commands said first node to retrieve the new program from said memory and to transmit the retrieved program to a second node immediately neighboring the first node.

4. Claim 19 is amended as follows:

19. (Cancelled)

5. The following is an examiner's statement of reasons for allowance:

Combination of the following technologies realize a novel form of program updating within a Network system. Applicant's most comprehensive claim discloses a network management system coupled to a set of nodes. The network management system initially (a) send out a first control signal along with program updates to a first node, (b) said first node is to allocate a fixed region in its memory corresponding to said first control signal and the new program updates is stored therein by replacing the old program with the new program updates. (c) Next, the network management system is to transmit a data-transmitting signal towards said first node, a second control signal is also sent to a second node on the network from the network management system in order to allow the second node to get ready for an incoming new program change data, and (d) finally, the first node will send its previously stored new program updates in step (b) towards the second node responsive to said data-transmission signal.

The closest art of record, Nishnio et al., US 5,557,317 does not disclose the combination of the above limitations. Furthermore, Chernock et al., US 5,772,209 teaches a similar system of

program update that propagates throughout adjacent nodes in a network. However, the intermediary nodes as taught in Chernock et al. does not explicitly teach storing of update information to be forwarded to the destination node, instead, the intermediary nodes appends additional rules/signals to the original program update rules. Moreover, the final recipient of Chernock et al. does not further forward the update information to additional nodes through the usage of control signals as is taught in the present invention. Therefore, none of the prior art of record teaches of allocating a fixed region in a memory within said first node in response to the reception of the new program data, storing the received new program data in the allocated fixed region, replacing the program of said first node coupled to the network management system with the new program data responsive to the first control signal, and further sending the newly updated program data to a second node in responsive to a data transmission signal. The above limitation is supported in applicant's specification, pg 12, line 7 through pg 13, line 2.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571)272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAROENCHONWANIT, BUNJOB can be reached on (571)272-3913. The fax phone number for the organization where this application or proceeding is assigned is 703-8729306.

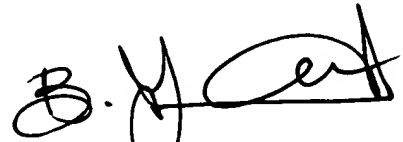
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CZ,

October 21, 2005



BUNJOB JAROENCHONWANIT
PRIMARY EXAMINER